

# Resource Planning for Accelerator Operations and Development

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#### Overview

- Accelerator Operations and Upgrades
  - > Program
  - > Strategy through 2009
  - > Evolution of AD Organization
  - > Manpower Statistics Projections
  - > Overview of Budget Guidance and Projections



#### Program

#### Accelerator Operations

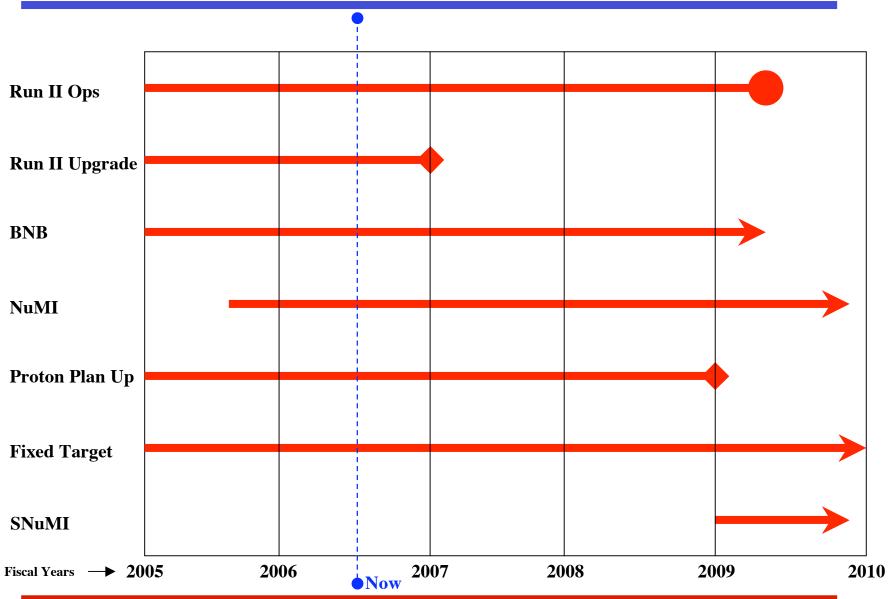
- > Run II Collider Operations
- > 8 GeV Booster Neutrino Review (BNB)
- > NuMI 120 GeV Neutrino Operations and Improvements
- > Fixed Target and Test Beams

### Accelerator Upgrades

- > Run II Upgrade
- > Proton Plan Upgrade
- > Further upgrades to Proton Intensity for Neutrino Program



## Time Scale for Operating Program





#### Strategy

- Maintain vigorous Run II and Neutrino efforts
  - Complete Run II Upgrade in 2006
    - Continue program of improvements as required for the success of the program
  - Complete Proton Plan
    - Continue running the Booster Neutrino Beam (BNB)
    - Continue and improve the NuMI program with further improvements to existing accelerator system
  - Maintain adequate manpower to ensure a strong Run II Conclusion and the continuing success of the NuMI Program
- As upgrades wind down more effort is available for additional improvements and projects such as:
  - > SNuMI
  - > ILC
  - > Neutrino Development Plan
  - High Intensity Neutrino Source (HINS)

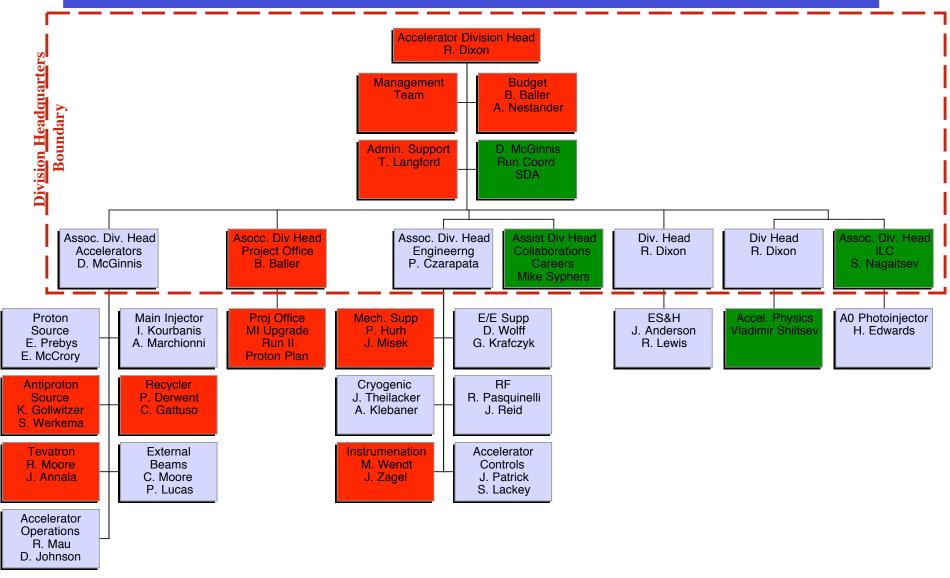


## Strategy for Organizational

- Ever Changing Landscape Requires the organization to be flexible
  - > Adjustments must be continually made to enhance our ability to accomplish our goals and mission
  - > Effort must be moved as projects are completed
  - New goals must be added as the operating program evolves and new projects begin
  - > The organization must evolve with these new goals
  - Through the changes an organizational structure must be maintained to ensure that the operating program is not compromised

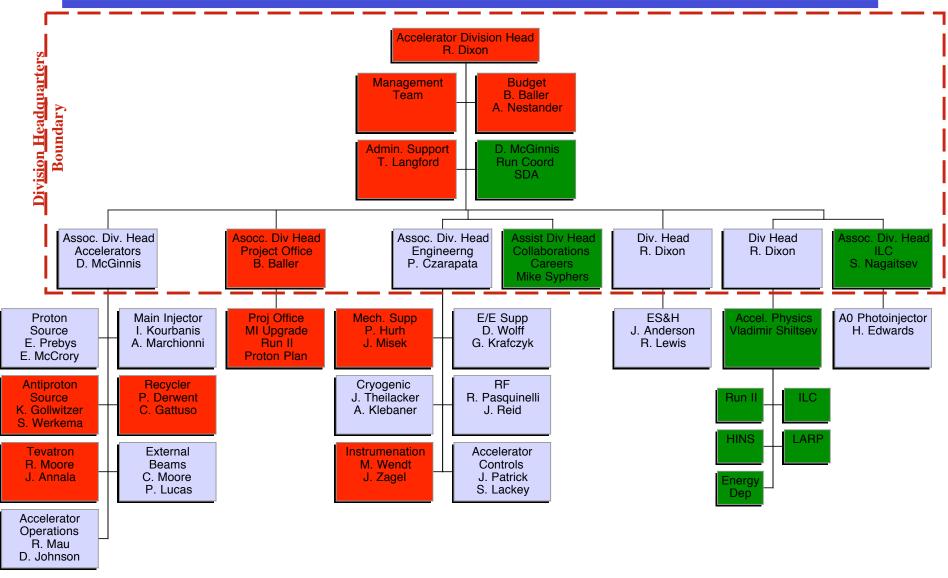


#### Accelerator Division Organization



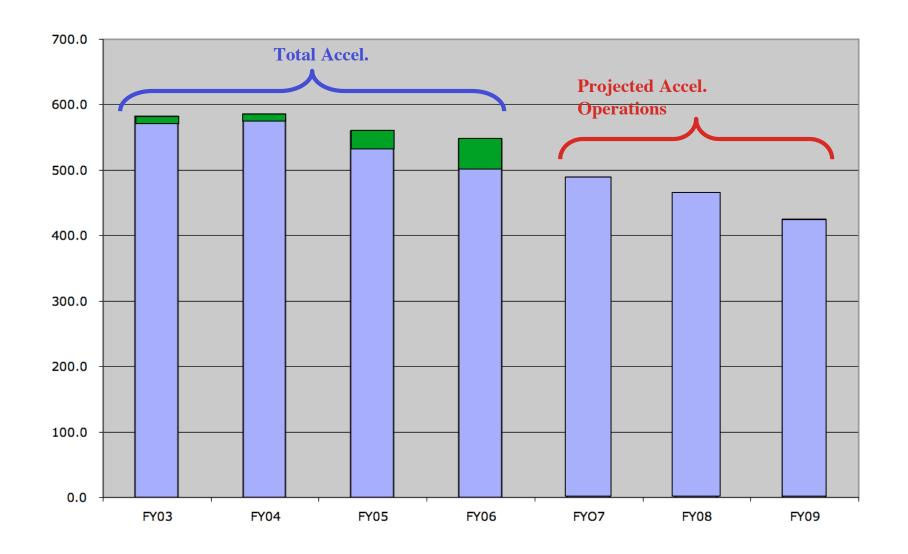


#### Accelerator Division Organization



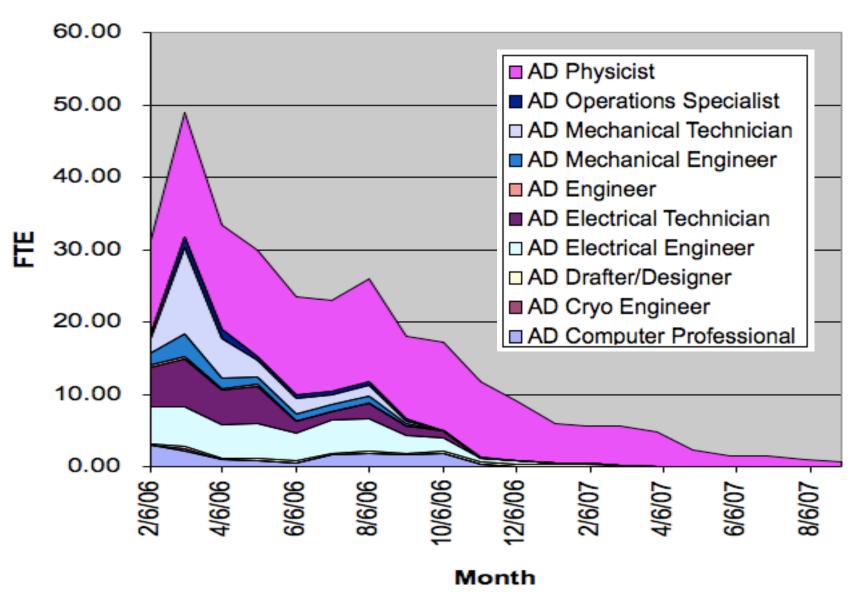


## Accelerator Division Operations Manpower





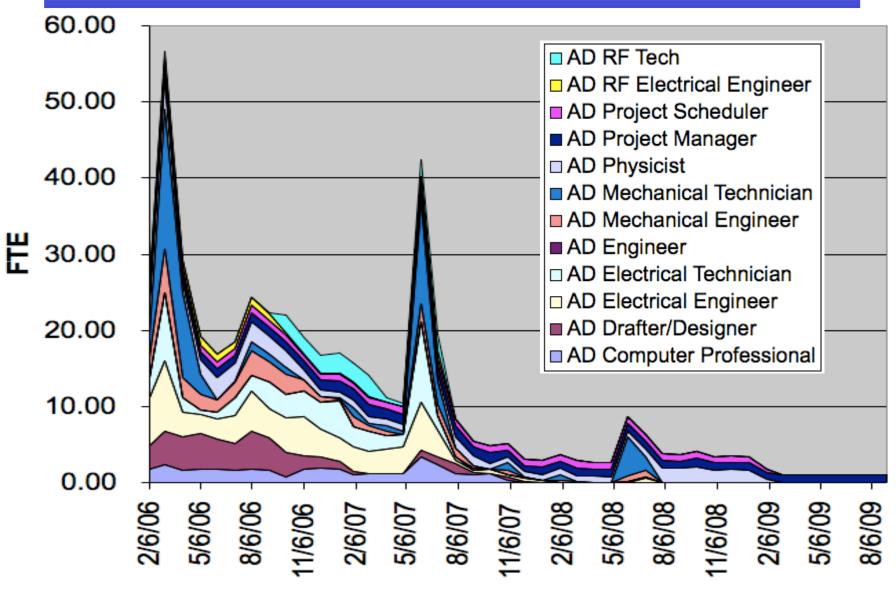
### Run II Manpower Profile



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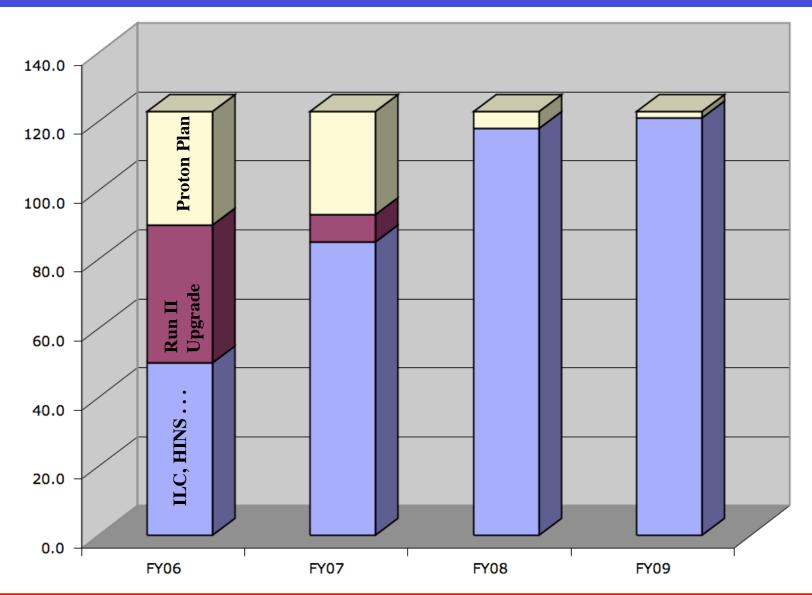


#### Proton Plan AD Labor





## Accelerator Manpower for Future Projects



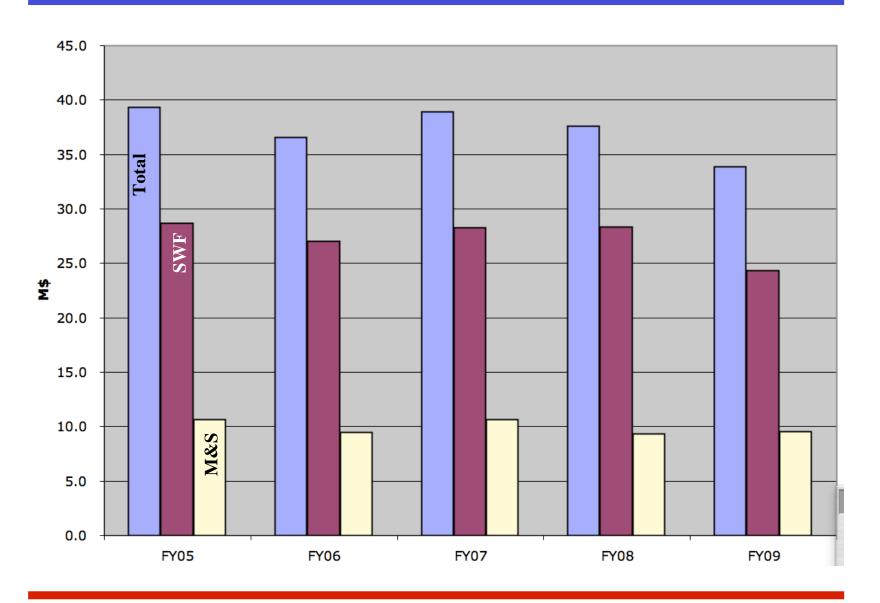


# Accelerator Operations Budget

	FY05	FY06	FY07	FY08	FY09
LABOR					
ACCELERATOR M&O	28.7	27.1	28.3	28.3	24.3
ACCELERATOR UPGRADES - R2LU ACCELERATOR UPGRADES - OTHER	10.0 2.4	5.3 1.8	0.0 1.3	0.0 1.9	0.0 0.0
PROTON PLAN	2.4 1.5	3.9	1.3 3.8	1.9	0.0
NEUTRINO DEVELOPMENT PLAN	0.0	0.0	0.0	0.0	4.0
MINIBOONE, FT EXPS & EXT BEAMS	3.0	2.8	3.2	3.6	3.7
NuMI / MINOS	2.6	1.0	1.1	1.1	1.1
OTHER DIRECT SUPPORT	16.5	16.6	16.8	17.5	18.2
POWER & UTILITIES	0.0	0.0	0.0	0.0	0.0
TOTAL LABOR COSTS	64.7	58.5	54.5	53.9	51.4
<u>M&amp;S</u>					
ACCELERATOR M&O	10.6	9.5	10.6	9.3	9.5
ACCELERATOR UPGRADES - R2LU	6.0	0.9	0.0	0.0	0.0
ACCELERATOR UPGRADES - OTHER	0.0	0.0	0.0	0.0	0.0
PROTON PLAN	2.8	4.5	5.6	0.0	0.0
NEUTRINO DEVELOPMENT PLAN	0.0	0.0	0.0	0.0	10.0
MINIBOONE, FT EXPS & EXT BEAMS NuMI / MINOS	0.2 0.6	0.4 0.3	0.4 0.3	0.4 0.3	0.4 0.4
OTHER DIRECT SUPPORT	5.8	6.7	6.9	0.3 6.5	6.7
POWER & UTILITIES *	5.o 16.2	18.5	23.9	6.5 27.7	28.4
TOTAL M&S COSTS	42.2	40.8	47.8	44.3	55.4
TOTAL					
ACCELERATOR M&O	39.3	36.5	38.9	37.6	33.8
ACCELERATOR UPGRADES - R2LU	16.0	6.2	0.0	0.0	0.0
ACCELERATOR UPGRADES - OTHER	2.4	1.8	1.4	1.9	0.0
PROTON PLAN	4.3	8.4	9.4	1.6	0.0
NEUTRINO DEVELOPMENT PLAN	0.0	0.0	0.0	0.0	14.0
MINIBOONE, FT EXPS & EXT BEAMS	3.2	3.2	3.6	4.0	4.1
NuMI / MINOS	3.1	1.3	1.4	1.4	1.4
OTHER DIRECT SUPPORT POWER & UTILITIES *	22.3 16.2	23.3 18.5	23.7 23.9	24.1	24.9 28.4
POWER & UTILITIES "				27.7	
TOTAL COSTS	106.8	99.2	102.2	98.2	106.8

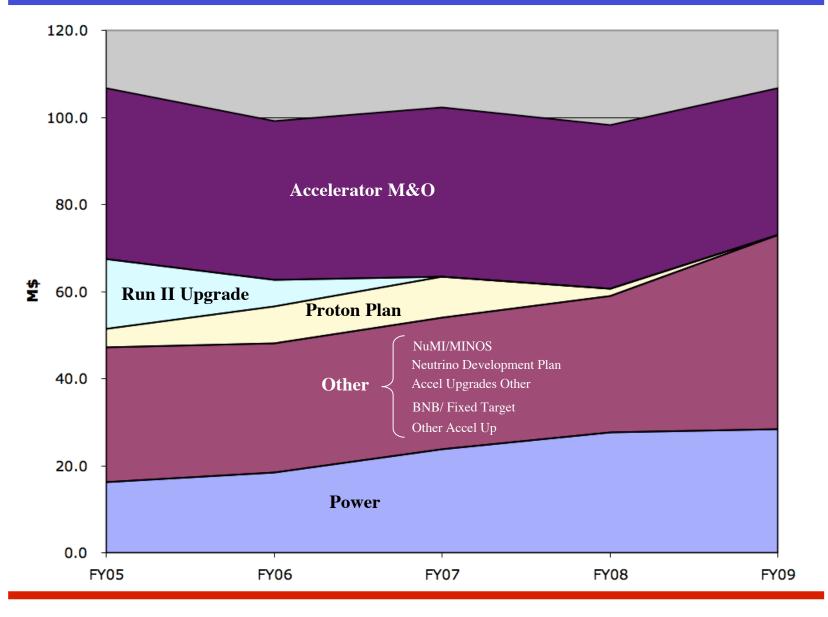


## Accelerator Maintenance & Operations





## Total Accelerators Budget



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#### Summary

- We will maintain a strong operating program through 2009 (and beyond)
- Organization will remain flexible meet the new goals
- Significant manpower will become available as upgrades are completed to contribute to other Laboratory accelerator programs